

In the Claims

1.-46. (Cancelled)

47. (New) A method for detecting formation and development of a microorganism biofilm on a surface in a liquid medium comprising:

a) introducing into said medium at least one particle that is charged electrically, magnetic or magnetizable or covered with at least one magnetic or magnetizable layer,

b) keeping the medium in conditions that permit development of a biofilm by said microorganism on said surface, said at least one particle resting on said surface, and

c) detecting formation of a biofilm on said surface by application of an electric, magnetic or electromagnetic field to set into motion said at least one particle, the formation of a biofilm being detected when the motions of said at least one particle on said surface are slowed down or prevented due to formation of the biofilm.

48. (New) The method according to claim 47, wherein step c) comprises subjecting said at least one particle to an electric, magnetic or electromagnetic field that may be applied by impulsion.

49. (New) The process according to claim 47, wherein step c) comprises subjecting said at least one particle to a progressive augmentation of an electric, magnetic or electromagnetic field.

50. (New) The method according to claim 47, wherein said electrical, magnetic or electromagnetic field is generated a means that generates a motion field.

51. (New) The method according to claim 47, wherein said medium flows in a constant stream through an open reactor.

52. (New) The method according to claim 47, wherein the medium flows at a discontinuous stream through an open reactor at given time intervals.

53. (New) The method according to claim 47, wherein in step c) the at least one particle is lighted with a light source and motion of the lighted particle is detected.

54. (New) The method according to claim 47, wherein the at least one particle generates a signal.

55. (New) The method according to claim 47, wherein the at least one particle is fluorescent, phosphorescent, radioactive or chemo-luminescent.

56. (New) The method according to claim 47,
wherein several particles are introduced into the medium in step a), and
wherein formation of a biofilm on said surface is detected in step c) by applying an electric, magnetic or electromagnetic field to set into motion said particles, formation of a biofilm being detected when the particles cannot be brought together on said surface by the electric, magnetic or electromagnetic field.

57. (New) The method according to claim 47, wherein when particles can be grouped together and detection of the grouping is visual.

58. (New) The method according to claim 47, wherein said medium is homogeneous or non-homogeneous.